



USDA, National Agricultural Statistics Service

Indiana Crop & Weather Report

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CROP REPORT FOR WEEK ENDING JULY 31

AGRICULTURAL SUMMARY

High temperatures and humidity prevailed again last week placing further stress on crops and livestock, according to the Indiana Field Office of USDA's National Agricultural Statistics Service. Isolated thunderstorms produced heavy rainfall in some areas but most of the state remained very dry. High winds resulted in more lodging and green snap in some corn fields. There have been some reports of spider mites in soybean fields, but only minimal spraying has been required thus far. Harvest of potatoes and cucumbers for processing was underway in some northern areas while watermelons and cantaloupe were being picked in southwestern counties.

FIELD CROPS REPORT

There were 6.3 **days suitable for field work**. Eighty-one percent of the **corn** crop has **silked** compared with 95 percent last year and 85 percent for the 5-year average. By region, 79 percent has silked in the north, 82 percent central and 80 percent in the south. Eight percent of the corn is in **dough** compared to 35 percent last year and 21 percent for the 5-year average. **Corn condition** is rated 41 percent good to excellent compared with 63 percent last year at this time.

Sixty-six percent of the **soybean** acreage is **blooming** compared with 86 percent last year and 75 percent for the 5-year average. By region, 73 percent has bloomed in the north, 64 percent central and 58 percent in the south. Twenty-two percent of the soybean acreage is **setting pods** compared with 57 percent last year and 33 percent for the 5-year average. **Soybean condition** is rated 44 percent good to excellent compared with 64 percent last year at this time.

Major activities during the week included: cutting and baling hay, monitoring irrigation systems, applying herbicides and fungicides, harvesting vegetable crops, detasseling seed corn, attending county fairs, mowing roadsides and taking care of livestock.

LIVESTOCK, PASTURE AND RANGE REPORT

Pasture condition declined and is now rated 33 percent good to excellent compared with 65 percent last year. The **second cutting of alfalfa hay** is 91 percent complete compared with 93 percent last year and 91 percent for the 5-year average. High humidity and sustained temperatures above 90 degrees continued to stress **livestock** causing additional death loss in poultry and some swine.

CROP PROGRESS

Crop	This Week	Last Week	Last Year	5-Year Avg.
Percent				
Corn Silked (Tasseled)	81	62	95	85
Corn in Dough	8	NA	35	21
Soybeans Blooming	66	51	86	75
Soybeans Setting Pods	22	7	57	33
Alfalfa, Second Cutting	91	81	93	91

CROP CONDITION

Crop	Very Poor	Poor	Fair	Good	Excellent
Percent					
Corn	6	15	38	33	8
Soybean	5	12	39	37	7
Pasture	7	21	39	30	3

SOIL MOISTURE & DAYS SUITABLE FOR FIELDWORK

Soil Moisture	This Week	Last Week	Last Year
Percent			
Topsoil			
Very Short	19	14	2
Short	44	39	22
Adequate	35	44	71
Surplus	2	3	5
Subsoil			
Very Short	10	7	1
Short	37	29	20
Adequate	52	60	74
Surplus	1	4	5
Days Suitable	6.3	6.2	5.6

CONTACT INFORMATION

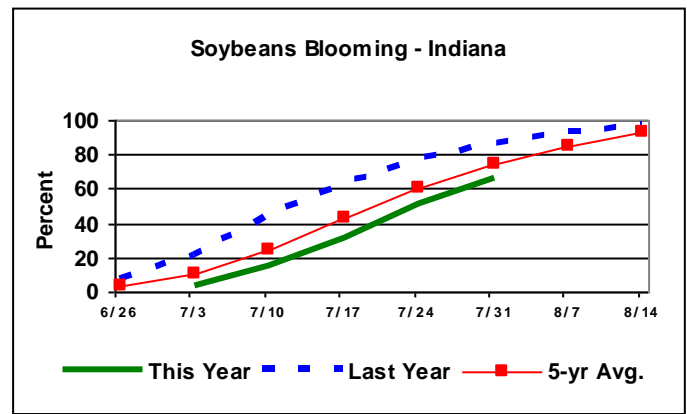
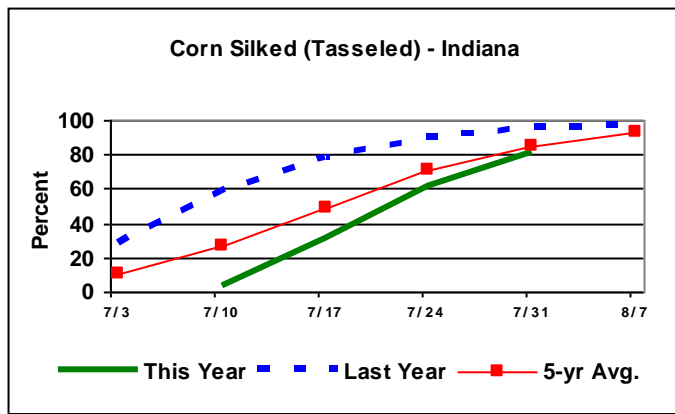
--Greg Preston, Director

--Andy Higgins, Agricultural Statistician

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http://www.nass.usda.gov/Statistics_by_State/Indiana/

Crop Progress



Other Agricultural Comments And News

Prospects of Recovery for Root-Lodged Corn

Written by R.L. (Bob) Nielsen, Agronomy Dept., Purdue University. Article appears in the July 26, 2001 issue of Corny News and can be found online, along with pictures: <http://www.kingcorn.org/news/articles.11/FlatCorn-0726.html>

Scattered storms across Indiana in the past week or so flattened hundreds, if not thousands, of acres of corn. In contrast to stalk breakage, these flattened fields are the result of corn stalks being partially uprooted by strong winds and literally laid flat to the ground. Thus, the technical term for such flattening is "root lodging", not "stalk lodging".

The severity of the root lodging varies among and within fields, depending on the severity of the winds and the amount of soil saturation that accompanied the winds. The severity of root lodging was also influenced by the relative rooting depth of a field or area within a field. This growing season has not been conducive for deep rooting primarily because of shallow soil compaction created by pre-planting tillage operations and during the planting process itself. Soggy soils in the weeks after planting were not conducive for deep rooting. Excessively dry surface soils in recent weeks, coupled with shallow soil compaction layers, have not been conducive for further root development. Hybrids themselves vary naturally for root development and, thus, for susceptibility to root lodging.

Even though the natural response after walking a flattened field of corn is to assume catastrophic yield loss, there is an opportunity for such damaged fields to partially recover depending on the growth stage at which the damage occurred and the degree of root damage.

Others have speculated on the range of yield losses that may occur from flattened corn (see **Related Reading** below). Generally speaking, the younger the growth stage, the greater the opportunity for partial or perhaps even full recovery from such root lodging. The severity of root damage also influences the degree of recovery from root lodging.

Stage of Growth

Late-planted fields that are 1 to 2 weeks away from tasseling have the capacity to respond to the

flattening because their stalks are still elongating. The upper stalks of these nearly horizontal plants will bend or "goose-neck" as stalk elongation continues. With time, damaged fields may appear to have fully straightened up when in fact the lower stalks are still leaning severely. However, the good news with this type of "recovery" is that later-occurring pollination may be fairly successful if both tassels and silked ears are "lifted up" by the "goose-necking" of the elongating stalks.

Earlier-planted fields already pollinating or beyond when flattened simply do not have as much capacity to straighten up or "goose-neck" because stalk elongation is essentially complete by tasseling. Fields that were beginning or within days of beginning to pollinate are particularly susceptible to yield loss when the field is flattened by wind because both tassels and silks are not only near to the ground but also partially covered by the leaves of neighboring plants also laying flat. Pollen is not shed properly, silks are not exposed properly to pollen, and kernel set will subsequently range from zero to poor.

Fields that were already beyond pollination and into early stages of grain filling when the wind damage occurred suffer the same inability to straighten up significantly after a flattening event. Photosynthesis will be severely curtailed within the flattened canopy because of the significant shading of plants by other plants. Kernel abortion in such flattened fields could be significant.

Extent of Root Damage

The other factor that influences the degree of recovery from such flattening events is the extent of root damage suffered by the individual plants. Less root damage means more opportunity to recover and vice versa. The ability for compensatory root development is also influenced by whether soil moisture is adequate or not. Thankfully, many of the damaging storms also dropped 2+ inches of much-needed rain. Nevertheless, the root regeneration ability of damaged plants will play a role in determining the impact of the flattening event.

(continued on page 4)

Weather Information Table

Week Ending Sunday, July 31, 2011

Station	Past Week Weather Summary Data							Accumulation				
	Air							April 1, 2011 through				
	Temperature				Precip.	4 in	Avg	July 31, 2011				
							Soil	Precipitation		GDD Base 50°F		
	Hi	Lo	Avg	DFN	Total	Days	Temp	Total	DFN	Days	Total	DFN
Northwest (1)												
Chalmers_5W	91	65	77	+4	1.82	3		23.20	+8.00	53	1885	+4
Francesville	92	62	76	+4	2.21	3		22.42	+7.17	55	1868	+141
Valparaiso_AP_I	90	60	77	+5	2.39	4		20.76	+4.72	53	1898	+205
Wanatah	92	60	75	+4	2.56	4	81	24.26	+8.66	66	1683	+66
Winamac	91	65	78	+6	1.66	4		25.03	+9.78	65	1812	+85
North Central (2)												
Plymouth	92	62	77	+4	2.05	4		23.42	+7.46	60	1874	+72
South_Bend	90	63	78	+6	0.83	4		22.02	+7.05	62	1951	+275
Young_America	91	63	78	+5	1.01	2		21.74	+7.04	45	1964	+199
Northeast (3)												
Fort_Wayne	95	64	80	+7	0.03	1		17.96	+4.10	55	2136	+377
Kendallville	91	62	77	+6	2.25	4		22.49	+7.87	75	1876	+225
West Central (4)												
Greencastle	91	65	78	+4	0.71	2		24.04	+6.64	56	1971	-25
Perrysville	95	65	80	+7	0.30	1	90	18.92	+2.33	49	2155	+285
Spencer_Ag	95	69	82	+8	1.30	2		23.49	+5.70	52	2163	+288
Terre_Haute_AFB	96	67	81	+6	1.45	3		23.56	+6.72	56	2311	+318
W_Lafayette_6NW	94	63	79	+6	0.46	2	84	24.07	+8.81	53	2060	+295
Central (5)												
Eagle_Creek_AP	95	69	83	+8	0.41	2		20.17	+4.51	56	2339	+365
Greenfield	96	65	81	+7	0.76	2		24.60	+7.41	61	2161	+276
Indianapolis_AP	97	69	84	+10	0.36	2		19.18	+3.52	52	2395	+421
Indianapolis_SE	95	64	81	+6	0.50	2		25.11	+8.82	54	2096	+142
Tipton_Ag	94	63	79	+7	0.37	1	89	23.88	+8.44	55	2025	+314
East Central (6)												
Farmland	94	65	80	+8	0.99	4		18.46	+3.21	62	2046	+382
New_Castle	96	61	79	+7	1.20	2		26.00	+9.23	51	1983	+282
Southwest (7)												
Evansville	96	71	84	+7	0.08	1		32.85	+16.55	48	2675	+359
Freelandville	95	70	82	+7	0.77	2		24.05	+7.17	44	2407	+344
Shoals_8S	98	67	82	+8	0.10	2		29.33	+11.05	44	2273	+290
Stendal	95	71	82	+6	0.24	1		37.97	+19.94	47	2453	+285
Vincennes_5NE	98	70	83	+8	1.82	2	85	31.74	+14.86	48	2470	+407
South Central (8)												
Leavenworth	97	70	83	+8	0.35	2		30.75	+12.27	57	2428	+450
Oolitic	94	67	81	+7	0.11	1	87	32.21	+14.89	54	2151	+260
Tell_City	97	73	83	+6	0.00	0		31.10	+12.77	46	2530	+333
Southeast (9)												
Brookville	98	67	82	+9	0.20	1		24.04	+7.35	52	2235	+452
Greensburg	97	69	83	+10	0.95	1		27.16	+10.39	49	2338	+491
Seymour	94	67	81	+7	0.72	2		28.16	+11.40	47	2170	+267

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DFN = Departure From Normal.

GDD = Growing Degree Days.

Precipitation (Rainfall or melted snow/ice) in inches.

Precipitation Days = Days with precip of .01 inch or more.

Air Temperatures in Degrees Fahrenheit.

For more weather information, visit www.awis.com or call 1-888-798-9955.

Other Complications

There is some concern that flattened corn will be more susceptible to **foliar disease** because of the proximity to the soil surface and possible higher humidity levels within the flattened canopy. Alison Robertson, Iowa State University, addresses the question of whether flattened fields should be sprayed with foliar fungicides in her [recent article](#). My take on her comments is that benefits to such fungicide applications are NOT assured.

Let's say you are lucky and your flattened fields straighten up enough to successfully pollinate. Then let's say that grain filling occurs without a hitch and ear size is acceptable. Now think about those "goose-necked" lower portions of the stalk and how they relate to the center of gravity created by those acceptable ear sizes situated higher up the stalk. If stalk rots or simply stalk cannibalization develop late in the grain filling process, those "goose-necked" plants will likely be at greater risk of **stalk breakage prior to harvest**.

A final consequence of "goose-necked" fields will be the increased challenges of grain harvest. First of all, it may be difficult to harvest "on the rows" because the "rows" you will see from the combine cab will be the tops of "goose-necked" plants. That headache plus the possible greater risk of stalk breakage noted earlier will easily translate into a **frustratingly slow harvest**. Growers may want to consider arranging for combine reels or similar header attachments to aid in gathering downed corn into the header.

Related Reading

Elmore, Roger. 2011. Wind and Corn. Integrated Crop Management News, Iowa State Univ Extension. [online] Available at <http://www.extension.iastate.edu/CropNews/2011/0712elmore.htm> [URL accessed July 2011].

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Nafziger, Emerson. 2011. Wind Damage in Corn. The Bulletin, Univ of Illinois Extension. [online] Available at <http://bulletin.ipm.illinois.edu/article.php?id=1534> [URL accessed July 2011].

Robertson, Alison. 2011. Thoughts on Spraying Downed Corn with a Fungicide. Integrated Crop Management News, Iowa State Univ Extension. [online] Available at <http://www.extension.iastate.edu/CropNews/2011/0713robertsona.htm> [URL accessed July 2011].

Thomison, Peter. 2011. Effects of Wind Lodging on Corn Performance. C.O.R.N., Ohio State Univ Extension. [online] Available at <http://corn.osu.edu/newsletters/2011/2011-22/effects-of-wind-lodging-on-corn-performance> [URL accessed July 2011].

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